

# Eva Dengler

PHD STUDENT · RESEARCHER

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## Education

### Doctoral Student

CHAIR FOR DISTRIBUTED SYSTEMS AND OPERATING SYSTEMS, COMPUTER SCIENCE, FAU

11/2022 - future

### Master's Degree

COMPUTER SCIENCE, FAU

04/2020 - 09/2022

Grade: 1.0 (best possible grade)

### Bachelor's Degree

COMPUTER SCIENCE, FAU

10/2016 - 03/2020

Grade: 1.4

### Gymnasium: Abitur

GNADENTHAL-GYMNASIUM INGOLSTADT

09/2008 - 06/2016

Grade: 1.0 (best possible grade)

### Basic School

GRUND- UND VOLKSSCHULE REICHERTSHOFEN

09/2004 - 08/2008

## Work and Teaching Experience

VEZS	<b>Exercise Supervision</b> , Verlässliche Echtzeitsysteme	09/2024 - now
EZS	<b>Exercise Supervision</b> , Echtzeitsysteme	04/2024 - 09/2024
AKSS	<b>Exercise Supervision</b> , Ausgewählte Kapitel der Systemsoftware	09/2023 - 03/2024
GSP	<b>Exercise Supervision</b> , Grundlagen der Systemprogrammierung	04/2023 - 09/2023
SP	<b>Exercise Supervision</b> , Systemprogrammierung	11/2022 - 03/2023
InvasIC	<b>Student Researcher</b> , TCRC 89 "Invasive Computing" (InvasIC) - Operating System Development	10/2020 - 12/2021
HW	<b>Tutor</b> , Hallo Welt-Seminar: Preparation for Programming Contests	10/2019 - 09/2020
SP	<b>Tutor</b> , Grundlagen der Systemprogrammierung	04/2019 - 09/2019
SSC	<b>SSC</b> , Student Service Center	10/2018 - 03/2019
GRa	<b>Tutor</b> , Grundlagen der Rechnerarchitektur	04/2018 - 09/2018
AuD	<b>Tutor</b> , Algorithmen und Datenstrukturen	10/2017 - 03/2018
AUDI	<b>Holiday Worker</b> , AUDI Ingolstadt	08/2016 - 09/2016

## Seminars and Activities

WSOS	<b>Winter School of Operating Systems</b> , Günzburg, Germany	2023
CMMRS	<b>The Cornell, Maryland, Max Planck Pre-doctoral Research School</b> , Saarbrücken, Germany	2019
QED	<b>Quod Erat Demonstrandum e.V. Seminars and Academies</b> , Bavaria	2013 - 2017
INF	<b>Sommercamp Informatik</b> , Friedrich-Schiller-University Jena, Germany	2014, 2015
INF	<b>Die digitalen Nusknacker</b> , University Passau, Germany	2014, 2015
MATH	<b>Probekurs Mathematik</b> , LMU München, Germany	2013, 2014, 2015
DSA	<b>Deutsche Schülerakademie</b> , Roßleben, Germany	2014
MATH	<b>International Känguru Seminar</b> , Zakopane, Poland	2013

## Skills

<b>Programming</b>	C/C++, Python, Java, LaTeX
<b>Version Control</b>	Git, SVN
<b>Linux Experience</b>	Debian, Arch, Gentoo, CentOS
<b>Languages</b>	English (GER C1/Unicert III), Latin (proficiency certificate), Japanese (1 year language course)

## Competitions and Awards

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### 'Best Paper' and 'Outstanding Paper' Award

36TH EUROMICRO CONFERENCE ON REAL-TIME SYSTEMS '24

07/2024

Lille, France

### Absolventenpreis - GI-Fachgruppe Betriebssysteme

FOR MASTER THESIS "CLOCK-TREE-AWARE RESOURCE CONSUMPTION MODELS FOR EMBEDDED SoC PLATFORMS"

09/2023

Bamberg, Germany

### Student Cluster Competitions

ASC STUDENT SUPERCOMPUTER CHALLENGE'19 IN DALIAN, CHINA (FIRST PRIZE, GROUP COMPETITION AWARD);  
SC'18 IN DALLAS, TEXAS; SC'19 IN DENVER, COLORADO

10/2018, 04/2019, 11/2019

USA, China

### International Collegiate Programming Contest (ICPC)

MULTIPLE PARTICIPATIONS, TWO TIMES AT NORTHWESTERN EUROPE REGIONAL CONTEST (NWERC)

2018-2021

Germany & Netherlands

### Stipendium: Max Weber-Programm

[HTTPS://WWW.ELITENETZWERK.BAYERN.DE/START/FOERDERANGEBOETE/MAX-WEBER-PROGRAMM](https://www.elitenetzwerk.bayern.de/start/foerderangebote/max-weber-programm)

04/2018 - 09/2022

Bavaria

### Landeswettbewerb Mathematik Bayern, Bundeswettbewerb Mathematik

INCL. FOUR TIMES 'LANDESSIEGERIN', 2ND PRIZE IN 1ST ROUND

2011-2014, 2015-2016

Germany

### Mathematik-Olympiade, Känguru-Wettbewerb

PRIZES FROM 5TH TO 12TH GRADE; INCL. INTERNATIONAL AWARD AT KÄNGURU'13 (BEST 9 GERMAN PARTICIPANTS)

2008-2016

Germany

## Academic Activities

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WCET	<b>Secondary Reviewer</b> , 21st International Workshop on Worst-Case Execution Time Analysis (WCET'23)	2023
BK	<b>Member in Appointment Committee (Berufungskommission)</b> , Full Professor of Data and Software Engineering	2023
BK	<b>Member in Appointment Committee (Berufungskommission)</b> , Full Professor of Digital Reality	2020
ISC	<b>Student Volunteer</b> , ISC High Performance Conference, Frankfurt, Germany	2019
BK	<b>Member in Appointment Committee (Berufungskommission)</b> , Full Professor of Computer Science	2019
StuKo	<b>Student Member</b> , Studienkommission Informatik	2019 - 2022
FSI	<b>Member</b> , Fachschaftsinitiative der Informatik	2017 - 2021

## Open Source

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As I want to guarantee other researchers and users the freedom to run, study, share, modify, and improve my software, I aim to provide my research publicly available under open-source licences.

CRÊPE	Clock-Reconfiguration-Aware Preemption Control in RTs with Devices [1]	<a href="https://gitos.rrze.fau.de/crepe">https://gitos.rrze.fau.de/crepe</a>
FUSIONCLOCK	Resource-Optimal Clock-Tree Reconfigurations [2]	<a href="https://gitlab.cs.fau.de/fusionclock">https://gitlab.cs.fau.de/fusionclock</a>

## Publications

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- [1] E. Dengler and P. Wägemann. "Crêpe: Clock-Reconfiguration-Aware Preemption Control in Real-Time Systems with Devices". In: *36th Euromicro Conference on Real-Time Systems (ECRTS 2024)*. Vol. 298. 2024, 10:1–10:25. DOI: 10.4230/LIPIcs.ECRTS.2024.10.
- [2] E. Dengler, P. Raffreck, S. Schuster, and P. Wägemann. "FusionClock: Energy-Optimal Clock-Tree Reconfigurations for Energy-Constrained Real-Time Systems". In: *35th Euromicro Conference on Real-Time Systems (ECRTS 2023)*. Vol. 262. 2023, 6:1–6:23. DOI: 10.4230/LIPIcs.ECRTS.2023.6.
- [3] E. Dengler and P. Wägemann. "Crêpe: Clock Reconfigurability for Preemption Control (Artifact)". In: *Dagstuhl Artifacts Series 10.1* (2024), 2:1–2:3. DOI: 10.4230/DARTS.10.1.2.
- [4] E. Dengler, P. Raffreck, S. Schuster, and P. Wägemann. "FusionClock: WCEC-Optimal Clock-Tree Reconfigurations (Artifact)". In: *Dagstuhl Artifacts Series 9.1* (2023), 2:1–2:3. DOI: 10.4230/DARTS.9.1.2.
- [5] E. Dengler. "Clock-Tree-Aware Resource-Consumption Models for Embedded SoC Platforms". Master's Thesis. FAU Erlangen-Nürnberg, Sept. 2022.
- [6] E. Dengler. "Decoupling User and Kernel Space: A System Call Framework for OctoPOS". Bachelor's Thesis. FAU Erlangen-Nürnberg, May 2020.

Erlangen, October 29, 2024

